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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,662	05/31/2001	Luc Ouellet	11471-US	7966

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EXAMINER	
TALBOT, BRIAN K	
ART UNIT	**PAPER NUMBER**
1762	

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

S.C.

Office Action Summary	Application No.	Applicant(s)	
	09/867,662	OUELLET ET AL.	
	Examiner	Art Unit	
	Brian K Talbot	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5,6,8,11-18,20,21 and 23-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5,6,8,11-18,20,21 and 23-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The amendment filed 5/10/04 has been considered and entered. Claims 2-4,7,9,10,19 and 22 have been canceled. Claim 30 has been added. Claims 1,5,6,8,11-18,20,21 and 23-30 remain in the application.

2. In light of the amendment filed 5/10/04, the claim objections and the 35 USC 102 rejection have been withdrawn.

3. The specification recites on pg. 7, line 16 [0015] a Copending Application, however, no US Serial Number has been provided.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 30 recites the limitation "the nitrogen gad flow". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6. Claims 1,5,6,8,11-18,20,21 and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioya et al. (4,394,401), or Hseih et al., Characteristics of low-temperature and low-energy plasma-enhanced chemical vapor deposited SiO2", Law et al. (5,861,197), Bouffard et al. (5,409,743) or JP 62-279303 alone or in combination with Gau et al. (6,670,695).

Shioya et al. (4,394,401), or Hseih et al., Characteristics of low-temperature and low-energy plasma-enhanced chemical vapor deposited SiO2", Law et al. (5,861,197), Bouffard et al. (5,409,743) or JP 62-279303 fail to teach all the claimed precursor gases whereby all of the gases except one are controlled.

Shioya et al. (4,394,401) teaches gases of SiH4, N2O, Ph3 and Argon (abstract and col. 2, line 45 – col. 4, line 45). Hseih et al., Characteristics of low-temperature and low-energy plasma-enhanced chemical vapor deposited SiO2" teaches SiH4 and N2O and Helium as well as monitoring by FTIR (abstract), Law et al. (5,861,197) teaches silane and nitrous oxide (abstract), Bouffard et al. (5,409,743) teaches SiH4, N2O, Boron and PH3 (abstract and col. 3, line 20 – col. 5, lin25). JP 62-279303 teaches silane, nitrous oxide, germanium, PH3, etc. (abstract).

Shioya et al. (4,394,401), or Hseih et al., Characteristics of low-temperature and low-energy plasma-enhanced chemical vapor deposited SiO2", Law et al. (5,861,197), Bouffard et al.

(5,409,743) or JP 62-279303 all teach criticality of the deposited film by controlling a number of parameters associated with the deposition process of which flow rate is one.

While the Examiner acknowledges the fact that the references are silent upon maintaining all the flow rates of the precursor gases constant while changing one, it is the Examiner's position that one skilled in the art would have had a reasonable expectation of doing such since the results can be attributed to a single change in flow rate as opposed to changing one or more variables.

Gau et al. (6,670,695) teaches changing the flow rate of one precursor gas and maintaining the other constant to form a silicon film having a graded structure (col. 3, lines 29-48 and claims 3 and 4).

Therefore, it would have been obvious at the time the invention was made to have modified Shioya et al. (4,394,401), or Hseih et al., Characteristics of low-temperature and low-energy plasma-enhanced chemical vapor deposited SiO2", Law et al. (5,861,197), Bouffard et al. (5,409,743) or JP 62-279303 processes by controlling a single precursor flow rate as evidenced by Gau et al. (6,670,695) to control the deposited film produced.

Response to Amendment

7. Applicant's arguments filed 5/10/04 have been fully considered but they are not persuasive.

First of all, applicant arguments are not commensurate in scope with the claim.

Applicant argued that the delta-n (absorption in the micro optical range) is achieved between a particular wavelength range (1.3-1.55 um).

Applican agreed that it is well known in the art to vary the parameters in manufacturing silica waveguides, however stated that it would be so many combination that one skilled in the art would have to perform to obtain that of the present invention.

The Examiner disagrees. The Examiner has provided a secondary reference that states changing one parameter while keeping the others constant in manufacturing silica films to produce the desired film is conventional. Furthermore, Applicant recited "delta-n" which is the change in refractive index. The Examiner takes the position that the prior art would indeed have a refractive index change resulting form the change of the parameter to be monitored.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

B K Talbot 7/13/04

Brian K Talbot
Primary Examiner
Art Unit 1762

BKT